



TRYCLOPS

X – Purge Controller XP Version



- Simple to install & use
- Highly reliable
- Can monitor & control up to three purged enclosures
- Exhaust vent(s) standard
- Local & remote status alarms
- Casing available in anodized aluminum or 316 stainless steel
- 115 VAC up to 25 Amps or 230 VAC up to 12.5 Amps
- All in One Unit

OVERVIEW:

To prevent the possibility of fire or explosion inside the enclosures of energized electrical equipment, a protective gas supply is used to dilute potentially flammable vapors to an acceptable level, creating a safe area for the devices within the enclosure. Positive pressure prevents the ingress of flammable vapors in the surrounding atmosphere from entering into the enclosure as long as positive pressure is maintained. After the enclosure is purged, power may be automatically applied to the protected electrical equipment.

The Purge Solutions TRYCLOPS X - Purge Controller, XP Version provides objective evidence of positive enclosure pressure with both a visible indicator and supplied standard, dry-contact outputs for remote status monitoring. The TRYCLOPS X – Purge Controller, XP Version was designed specifically with analyzers in mind. A purge exhaust vent is provided standard for each enclosure, one, two, or up to three, the TRYCLOPS X – Purge Controller, XP Version will be monitoring.

FEATURES:

- The TRYCLOPS X – Purge Controller, XP Version can monitor and control power to one (1), two (2), or three (3) enclosures, which is customer specified.
- Enclosure purge exhaust vent is supplied standard for each enclosure the TRYCLOPS X – Purge Controller, XP Version will be monitoring.
- Dry contact outputs for remote monitoring of enclosure(s) purge pressure going below 0.30 inches H₂O (0.75 mbar), loss of enclosure(s) purge exhaust vent flow, and TRYCLOPS X – Purge Controller, XP Version is in maintenance mode are supplied as standard. Contacts open on alarm (Standard). Contacts closed on alarm (Optional). Order optional contact closed on alarm by adding an “X” at end of Purge Solutions model number.
- Rugged, distinctive visual LED indicator for local monitoring is supplied as standard.
- For applications where immediate disconnect of power to protected electrical equipment in purged enclosure would result in a more hazardous condition; a bypass switch is provided, which will allow power to the circuits to continue upon loss of purge pressure and / or exhaust flow.
- The TRYCLOPS X – Purge Controller, XP Version is certified to ATEX, CEC, IECEx, NEC, NFPA, UL and CE Marked for installation and use in Division 1 and Zone 1 hazardous areas.

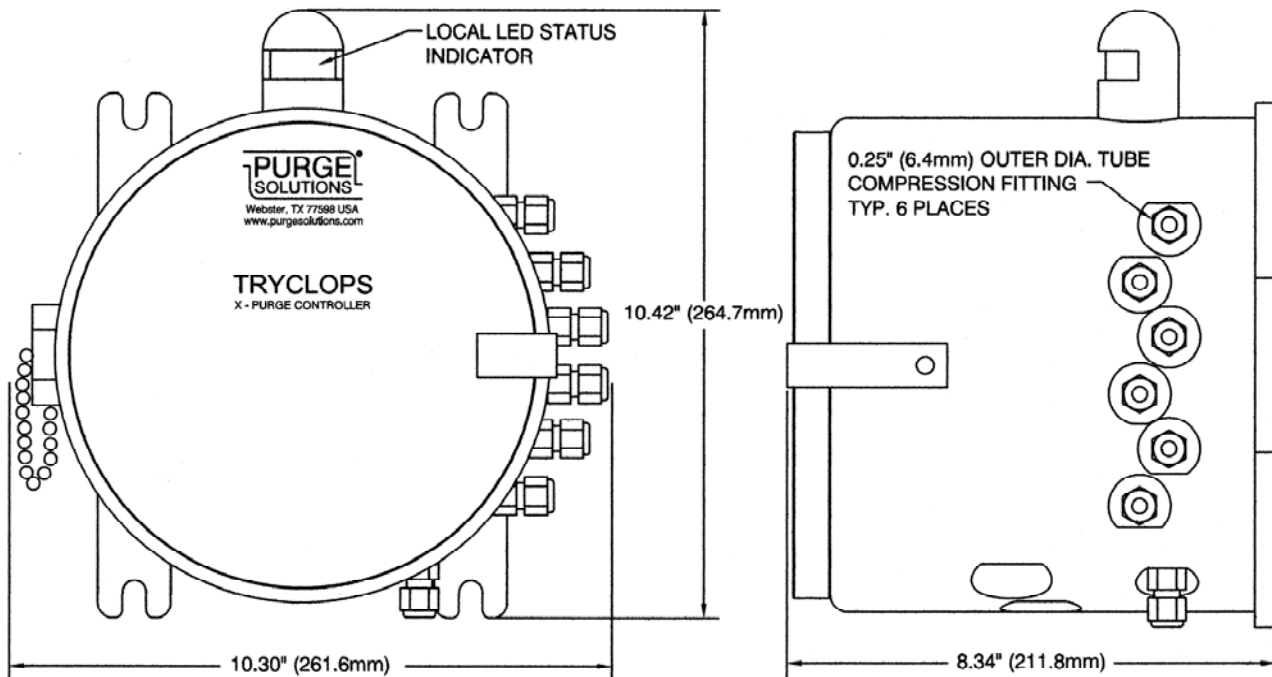


Figure 1



OPTIONS & ACCESSORIES AVAILABLE:

- **Purge Controller Casing:** Anodized aluminum (standard) 316 stainless steel (optional).
- **Input Voltages Available:** Either 115 VAC, or 230 VAC.
- **Purge Solutions Available Models:**
 1. One enclosure monitoring, 115VAC, Anodized aluminum, up to 15 Cubic foot (425 liters) volume enclosure one exhaust vent included: model number PST-11A1
 2. One enclosure monitoring, 115VAC, 316 stainless steel, up to 15 Cubic foot (425 liters) volume enclosure exhaust vent included: model number PST-11S1
 3. One enclosure monitoring, 230VAC, Anodized aluminum, up to 15 Cubic foot (425 liters) volume enclosure one exhaust vent included: model number PST-12A1
 4. One enclosure monitoring, 230VAC, 316 stainless steel, up to 15 Cubic foot (425 liters) volume enclosure one exhaust vent included: model number PST-12S1
 5. Two enclosure monitoring, 115VAC, Anodized aluminum, up to 15 Cubic foot (425 liters) volume enclosure two exhaust vents included: model number PST-21A1
 6. Two enclosure monitoring, 115VAC, 316 stainless steel, up to 15 Cubic foot (425 liters) volume enclosure two exhaust vents included: model number PST-21S1
 7. Two enclosure monitoring, 230VAC, Anodized aluminum, up to 15 Cubic foot (425 liters) volume enclosure two exhaust vents included: model number PST-22A1
 8. Two enclosure monitoring, 230VAC, 316 stainless steel, up to 15 Cubic foot (425 liters) volume enclosure two exhaust vents included: model number PST-22S1
 9. Three enclosure monitoring, 115VAC, Anodized aluminum, up to 15 Cubic foot (425 liters) volume enclosure three exhaust vents included: model number PST-31A1
 10. Three enclosure monitoring, 115VAC, 316 stainless steel, up to 15 Cubic foot (425 liters) volume enclosure three exhaust vents included: model number PST-31S1
 11. Three enclosure monitoring, 230VAC, Anodized aluminum, up to 15 Cubic foot (425 liters) volume enclosure three exhaust vents included: model number PST-32A1
 12. Three enclosure monitoring, 230VAC, 316 stainless steel, up to 15 Cubic foot (425 liters) volume enclosure three exhaust vents included: model number PST-32S1
 13. One enclosure monitoring, 115VAC, Anodized aluminum, up to 75 Cubic foot (2,125 liters) volume enclosure one exhaust vent included: model number PST-11A2
 14. One enclosure monitoring, 115VAC, 316 stainless steel, up to 75 Cubic foot (2,125 liters) volume enclosure exhaust vent included: model number PST-11S2
 15. One enclosure monitoring, 230VAC, Anodized aluminum, up to 75 Cubic foot (2,125 liters) volume enclosure one exhaust vent included: model number PST-12A2
 16. One enclosure monitoring, 230VAC, 316 stainless steel, up to 75 Cubic foot (2,125 liters) volume enclosure one exhaust vent included: model number PST-12S2
 17. Two enclosure monitoring, 115VAC, Anodized aluminum, up to 75 Cubic foot (2,125 liters) volume enclosure two exhaust vents included: model number PST-21A2
 18. Two enclosure monitoring, 115VAC, 316 stainless steel, up to 75 Cubic foot (2,125 liters) volume enclosure two exhaust vents included: model number PST-21S2
 19. Two enclosure monitoring, 230VAC, Anodized aluminum, up to 75 Cubic foot (2,125 liters) volume enclosure two exhaust vents included: model number PST-22A2
 20. Two enclosure monitoring, 230VAC, 316 stainless steel, up to 75 Cubic foot (2,125 liters) volume enclosure two exhaust vents included: model number PST-22S2



OPTIONS & ACCESSORIES AVAILABLE CONTINUED:

• **Purge Solutions Available Models Continued:**

21. Three enclosure monitoring, 115VAC, Anodized aluminum, up to 75 Cubic foot (2,125 liters) volume enclosure three exhaust vents included: model number PST-31A2
22. Three enclosure monitoring, 115VAC, 316 stainless steel, up to 75 Cubic foot (2,125 liters) volume enclosure three exhaust vents included: model number PST-31S2
23. Three enclosure monitoring, 230VAC, Anodized aluminum, up to 75 Cubic foot (2,125 liters) volume enclosure three exhaust vents included: model number PST-32A2
24. Three enclosure monitoring, 230VAC, 316 stainless steel, up to 75 Cubic foot (2,125 liters) volume enclosure three exhaust vents included: model number PST-32S2
25. One enclosure monitoring, 115VAC, Anodized aluminum, up to 200 Cubic foot (5,663 liters) volume enclosure one exhaust vent included: model number PST-11A3
26. One enclosure monitoring, 115VAC, 316 stainless steel, up to 200 Cubic foot (5,663 liters) volume enclosure exhaust vent included: model number PST-11S3
27. One enclosure monitoring, 230VAC, Anodized aluminum, up to 200 Cubic foot (5,663 liters) volume enclosure one exhaust vent included: model number PST-12A3
28. One enclosure monitoring, 230VAC, 316 stainless steel, up to 200 Cubic foot (5,663 liters) volume enclosure one exhaust vent included: model number PST-12S3
29. Two enclosure monitoring, 115VAC, Anodized aluminum, up to 200 Cubic foot (5,663 liters) volume enclosure two exhaust vents included: model number PST-21A3
30. Two enclosure monitoring, 115VAC, 316 stainless steel, up to 200 Cubic foot (5,663 liters) volume enclosure two exhaust vents included: model number PST-21S3
31. Two enclosure monitoring, 230VAC, Anodized aluminum, up to 200 Cubic foot (5,663 liters) volume enclosure two exhaust vents included: model number PST-22A3
32. Two enclosure monitoring, 230VAC, 316 stainless steel, up to 200 Cubic foot (5,663 liters) volume enclosure two exhaust vents included: model number PST-22S3
33. Three enclosure monitoring, 115VAC, Anodized aluminum, up to 200 Cubic foot (5,663 liters) volume enclosure three exhaust vents included: model number PST-31A3
34. Three enclosure monitoring, 115VAC, 316 stainless steel, up to 200 Cubic foot (5,663 liters) volume enclosure three exhaust vents included: model number PST-31S3
35. Three enclosure monitoring, 230VAC, Anodized aluminum, up to 200 Cubic foot (5,663 liters) volume enclosure three exhaust vents included: model number PST-32A3
36. Three enclosure monitoring, 230VAC, 316 stainless steel, up to 200 Cubic foot (5,663 liters) volume enclosure three exhaust vents included: model number PST-32S3

- **Continuous Dilution Purge Gas Inlet Kit:** For interfacing and regulating pressure of protective gas supply to enclosure. Small Continuous Dilution Purge Gas Inlet Kit for enclosures with a volume up to 15 cubic feet (425 liters). Model number PSO-SCD-A is our small aluminum version and PSO-SCD-S is our small stainless version. Small Continuous Dilution Purge Gas Inlet Kit supply gas inlet to regulator is 1/4-18 FNPT. Medium Continuous Dilution Purge Gas Inlet Kit for enclosures with a volume up to 75 cubic feet (2,125 liters). Model number PSO-MCD-A is our medium aluminum version and PSO-MCD-S is our medium stainless version. Medium Continuous Dilution Purge Gas Inlet Kit supply gas inlet to regulator is 3/8-18 FNPT. Large Continuous Dilution Purge Gas Inlet Kit for enclosures with volumes up to 200 cubic feet (5,663 liters). Model number PSO-LCD-A is our large aluminum version and PSO-LCD-S is our large stainless version. Large Continuous Dilution Purge Gas Inlet Kit supply gas inlet to regulator is 1/2-14 FNPT. All kits include input fitting, regulator, gauge, bracket and mounting hardware.



OPTIONS & ACCESSORIES AVAILABLE CONTINUED:

- **Automatic Leakage Compensation Purge Gas Inlet Kit:** Having two outlets from manifold able to increase the amount of purge gas to enclosure during dilution may be automatically selected to speed up dilution of potentially flammable materials to an acceptable level, reducing dilution time and permitting a more rapid restoration of power to purge protected equipment. Small Automatic Leakage Compensation Purge Gas Inlet Kits are for enclosures with a volume up to 15 cubic feet (425 liters). Model number PSO-SALC-D1A is our small, Division, 115VAC, aluminum version, model number PSO-SALC-D2A is our small, Division, 230VAC, aluminum version, model number PSO-SALC-D1S is our small, Division, 115VAC, stainless steel version and model number PSO-SALC-D2S is our small, Division, 230VAC, stainless steel version. Model number PSO-SALC-Z1A is our small, Zone, 115VAC, aluminum version, model number PSO-SALC-Z2A is our small, Zone, 230VAC, aluminum version, model number PSO-SALC-Z1S is our small, Zone, 115VAC, stainless steel version and model number PSO-SALC-Z2S is our small, Zone, 230VAC, stainless steel version. Small Automatic Leakage Compensation Purge Gas Inlet Kit supply gas inlet to regulator is 1/4-18 FNPT. Medium Automatic Leakage Compensation Purge Gas Inlet Kits are for enclosures with a volume up to 75 cubic feet (2,125 liters). Model number PSO-MALC-D1A is our medium, Division, 115VAC, aluminum version, model number PSO-MALC-D2A is our medium, Division, 230VAC, aluminum version, model number PSO-MALC-D1S is our medium, Division, 115VAC, stainless steel version and model number PSO-MALC-D2S is our medium, Division, 230VAC, stainless steel version. Model number PSO-MALC-Z1A is our medium, Zone, 115VAC, aluminum version, model number PSO-MALC-Z2A is our medium, Zone, 230VAC, aluminum version, model number PSO-MALC-Z1S is our medium, Zone, 115VAC, stainless steel version and model number PSO-MALC-Z2S is our medium, Zone, 230VAC, stainless steel version. Medium Automatic Leakage Compensation Purge Gas Inlet Kit supply gas inlet to regulator is 3/8-18 FNPT. Large Automatic Leakage Compensation Purge Gas Inlet Kit for enclosures with volumes up to 200 cubic feet (5,663 liters). Model number PSO-LALC-D1A is our large, Division, 115VAC, aluminum version, model number PSO-LALC-D2A is our large, Division, 230VAC, aluminum version, model number PSO-LALC-D1S is our large, Division, 115VAC, stainless steel version and model number PSO-LALC-D2S is our large, Division, 230VAC, stainless steel version. Model number PSO-LALC-Z1A is our large, Zone, 115VAC, aluminum version, model number PSO-LALC-Z2A is our large, Zone, 230VAC, aluminum version, model number PSO-LALC-Z1S is our large, Zone, 115VAC, stainless steel version and model number PSO-LALC-Z2S is our large, Zone, 230VAC, stainless steel version. Large Automatic Leakage Compensation Purge Gas Inlet Kit supply gas inlet to regulator is 1/2-14 FNPT. All kits include input fittings, regulator, gauge, manifold block and solenoid valve.
- **Back-Up Vents:** To protect the enclosure from over pressure; Purge Solutions offers two sizes of back-up vents. The first size is our Small Back-Up Vent for enclosures with a volume up to 15 cubic feet (425 liters). Model number PSO-SBUV-S is our small side mount version and model number PSO-SBUV-T is our small top mount version. The second size we offer is our Medium Back-Up Vent for enclosures with volumes above 75 cubic feet (2,125 liters). Model number PSO-MBUV-S is our medium side mount version and model number PSO-MBUV-T is our medium top mount version. The third size we offer is our Large Back-Up Vent for enclosures with volumes above 200 cubic feet (5,663 liters). Model number PSO-LBUV-S is our large side mount version and model number PSO-LBUV-T is our large top mount version. All Back-Up Vents are constructed of 316 stainless steel and come with all mounting hardware.



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OPTIONS & ACCESSORIES AVAILABLE CONTINUED:

- **Vortex Cabinet Cooler Kit:** For applications where thermal management of electrical cabinets and control panels are required; Purge Solutions offers Vortex Cabinet Cooler assemblies, which provide cooling capacities for your application and maintain a NEMA 4 and 4X (IP66) rating for installation and use in hazardous area. Contact your local Purge Solutions representative or the factory for sizing of system and installation information.
- **Back-Up Purge Gas Kit:** In the event that the initial protective purge gas supply is lost, this kit insures that a back-up source of protective gas may be automatically applied to the protected enclosure. Purge Solutions model number is PSO-BUPG-K and has inlets and outlets of 3/8-18 FNPT.
- **Protective Gas Loss Indicator Kit:** An explosion-proof differential pressure switch may be installed to provide an alarm contact output signal to indicate the loss of the backup source of protective gas. A second can be installed to provide loss of back-up purge gas. Purge Solutions model number is PSO-PGLI-K.
- **Differential Pressure Gauge Kit:** Purge Solutions also offers an all stainless steel differential pressure gauge kit, which can be mounted on left side model number PSO-DPG-L, right side model number PSO-DPG-R, top model number PSO-DPG-T or bottom model number PSO-DPG-B of enclosure.

GENERAL SPECIFICATIONS:

- **Overall Dimensions:**
10.3" (261.6mm) wide x 10.4" (264.7mm) tall x 8.3" (211.8mm) deep.
- **Operating Temperature Range:**
- 40°F to 150°F (-40°C to 65°C).
- **Purge Pressure Lower Limit:**
0.30 inches H₂O (0.75 mbar) Purge Controller will disconnect power to protected enclosure electronics.
- **Housing:**
Anodized aluminum, 29.72 lbs. (13.48 kg), NEMA 4 (IP66).
316 stainless steel, 70.07 lbs. (31.78 kg), NEMA 4X (IP66).
- **Power Control Capability:**
115 VAC up to 25 Amps RMS continuous over specified voltage ranges.
230 VAC up to 12.5 Amps RMS continuous over specified voltage ranges.
- **Power Input / Consumption:**
2 Watts max.



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XP Version

GENERAL SPECIFICATIONS CONTINUED:

- **Voltage:**
115 VAC model (85 VAC to 160 VAC), 47 to 63 Hz.
230 VAC model (130 VAC to 265 VAC), 47 to 63 Hz.
- **Dry Contact Outputs & Rating:**
 1. Enclosure purge pressure is below 0.30 inches H₂O (0.75 mbar).
 2. Enclosure exhaust flow has stopped.
 3. Purge Controller is in maintenance mode.Contacts open on alarm (Standard).
Contacts closed on alarm (Optional).
All rated to 265Volts AC/DC, 150mA max
- **Standard Hardware:**
Purge exhaust vent kit for each enclosure the TRYCLOPS X – Purge Controller will be monitoring and CD with all required documentation.
- **Hazardous Area Approvals:**
ATEX and IECEx
II 2 G Ex e mb ib [px] IIC T4 “for Zone 1 gas hazardous areas”
II 2 D Ex tD A21 IP66 T119°C “for Zone 1 dust hazardous areas”

ANSI / ISA 12.4, CEC, NEC, NFPA 496 and UL
Class I, Division 1, Group B,C,&D, T4 “for gas hazardous areas”
Class II, Division 1, Group E,F&G, T4 “for dust hazardous areas”

Certified to an Ambient Temperature Range of - 40°F (- 40°C) ≤Tamb≤ + 149°F (+ 65°C)

CE Marked.